IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A heat sink comprising:
a thermally conductive core that includes an outer surface; and
a plurality of non-planar helical fins extending from the outer surface of the core.

2. (Original) The heat sink of claim 1 wherein the core is a rod.

3. (Currently Amended) The heat sink of claim 1 wherein the non-planar helical fins spiral around the thermally conductive core at a substantially uniform pitch.

4. (Currently Amended) The heat sink of claim 1 wherein the non-planar helical fins have a similar width.

5. (Currently Amended) The heat sink of claim 1 wherein the heat sink includes at least 5 non-planar helical fins.

6. (Currently Amended) The heat sink of claim 1 wherein the core includes a top surface and a bottom surface and the non-planar helical fins includes opposing edges, at least one of the opposing edges being aligned with at least one of the top and bottom surfaces of the core.

7. (Original) The heat sink of claim 1 wherein the core is cylindrical.

8. (Currently Amended) A heat sink comprising:
a thermally conductive core that includes an outer surface and a longitudinal axis; and
a plurality of non-planar helical fins extending from the outer surface of the core and spiraling around the longitudinal axis of the thermally conductive core, the non-planar helical

fins being oriented at an angle substantially between 30 and 60 degrees relative to the longitudinal axis of the thermally conductive core.

9. (Currently Amended) The heat sink of claim 8 wherein the non-planar helical fins are oriented at an angle of about 45 degrees relative to the longitudinal axis of the thermally conductive core.

10. (Original) The heat sink of claim 8 wherein the core is a cylindrical rod.

11. (Currently Amended) The heat sink of claim 8 wherein the non-planar helical fins spiral around the thermally conductive core at a substantially uniform pitch.

12. (Currently Amended) An electronic assembly comprising:

a substrate;

an integrated circuit mounted on the substrate; and

a heat sink thermally coupled to the integrated circuit, the heat sink including a thermally conductive core having an outer surface, and a plurality of non-planar helical fins extending from the outer surface of the core.

13. (Original) The electronic assembly of claim 12 further comprising a fan near the heat sink.

14. (Original) The electronic assembly of claim 13 wherein the fan has a longitudinal axis and the heat sink has a longitudinal axis, the longitudinal axis of the fan being substantially aligned with the longitudinal axis of the heat sink.

15. (Currently Amended) The electronic assembly of claim 14 wherein the non-planar helical fins are oriented at an angle substantially between 30 and 60 degrees relative to the longitudinal axis of the heat sink, and the fan includes an impeller having a plurality of blades

that create an airflow as the impeller rotates, the airflow generated by the plurality of blades being oriented at substantially the same angle relative to the longitudinal axis of the fan as the angle of the non-planar helical fins is relative to the longitudinal axis of the heat sink.

16. (Original) The electronic assembly of claim 12 wherein the integrated circuit is a processor and the substrate is a motherboard.

17. (Currently Amended) A method of removing heat from an integrated circuit, the method comprising:

thermally coupling a heat sink to the integrated circuit, the heat sink including a thermally conductive core having an outer surface, and a plurality of non-planar helical fins extending from the outer surface of the core; and

positioning a fan near the heat sink to generate airflow over the non-planar helical fins of the heat sink.

18. (Currently Amended) The method of claim 17 wherein the non-planar helical fins are oriented at an angle substantially between 30 and 60 degrees relative to a longitudinal axis of the heat sink, and wherein positioning a fan near the heat sink includes orienting the fan to generate an airflow that is at substantially the same angle relative to the longitudinal axis of the heat sink as the angle of the non-planar helical fins is relative to the longitudinal axis of the heat sink.

19. (Original) The method of claim 18 wherein positioning a fan near the heat sink includes aligning a longitudinal axis of the fan with the longitudinal axis of the heat sink.

20. (Original) The method of claim 17 wherein thermally coupling a heat sink to the integrated circuit includes thermally coupling the thermally conductive core of the heat sink to the integrated circuit.